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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yoshijiro Yamamoto

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EXAMINER

ZHANG, FAN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,791	Applicant(s) YAMAMOTO ET AL.	
	Examiner FAN ZHANG	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-16, and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's remarks received on June 08, 2009 with respect to amended independent claims 1 and 10 have been fully considered but not found persuasive. The amended claims 1 and 10 are rejected with the same ground of rejection applied previously. Currently claims 1-7, 9-16, and 18-20 are rejected and claims 8 and 17 are cancelled.

With respect to claims 1 and 10, Applicant argues that Parker reference fails to teach "a correlation between an adhesive quality of the tape-like print medium and a flexural rigidity of the cable-like member." Examiner agrees with the assertion per discussion during the April 30, 2009 personal interview. However, Parker reference renders the claimed limitation obvious. Although Parker does not explicitly express the correlation between adhesive quality of the tape and flexural rigidity of the cable-like member, the potential relationship would have been obvious in Parker's teaching. It is a common sense and an obvious situation to an ordinary skilled in the art that a narrow tape stuck to a cable would be more likely to come off when the cable is bent/twisted due to poor adhesion from the narrow contact surface. The same correlation exists in Parker's invention. A narrow binder strip applied to a wide and curved binder spine or bound to a big stack of sheets would not endure bending/twisting of binder/stack from regular handling. Or binding a wide tape to a thin stack of sheets stiffens the sheets and hampers handling/flipping of the sheets. Therefore, it would have been obvious for an ordinary skilled in the art to apply tapes with different widths to cable-like members

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with different diameters/thickness based on Parker's teaching for obtaining better correlation between adhesiveness of the tape and rigidity of the cable-like member.

Response to Amendment

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 4-7, 10, and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurashina (US Patent: 6,707,571) and in further view of Kojo (US Patent: 6,371,670) and Parker et al (US Patent: 6,027,265).**

Regarding claim 1 (currently amended), Kurashina teaches: A tape printing control device [col 7: lines 57-61] comprising: a character string memory which stores a character string to be printed on a tape-like print medium [col 8: lines 31-33; a print range memory which stores a print range on the tape-like print medium in which the character string will be printed [col 3: lines 30-38, col 4: lines 36-42]; a character image generator which generates a character image in which the character string stored in the character string memory is arranged in a width direction of the tape-like print medium [col 8: lines 15-27, figs. 27 and 28]; and a print controller which controls print position of

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each character image so that the character image generated by the character image generator will be printed at both ends of the print range stored in the print range memory in regard to a lengthwise direction of the tape-like print medium [figs. 12, 27 and 28. Since the full print range is covered with characters, both ends are printed with characters as well.]. In the same field of endeavor, Kojo also teach printing characters at both ends of a tape-like medium in [figs. 14 and 15]. Therefore, it would have been obvious for an ordinary skilled in the art to apply the teaching from either Kurashina, Kojo, or the two combined to ensure characters printed at both ends of a tape in width/length direction for the purposes of fully utilizing the tape space or easy identification of a label from multiple directions.

Kurashina do not disclose a diameter input system or a recommended width determination system. Kojo further teaches: a first external diameter input system through which an external diameter of a cable-like member can be inputted; a recommended length determination system for determining a recommended length of the tape-like print medium to be wound around the cable-like member based on the external diameter inputted through the first external diameter input system [abstract, col 8: lines 28-46, col 17: lines 22-67, figs. 9, 10, 14, and 27]. Kojo discloses a recommended length system, but not a width system. In the same field of endeavor, Parker et al teach: a memory storing a data table including a correspondence between the external diameter of the cable-like member and a recommended width of the tape-like print medium; a recommended width determination system for determining the recommended width of the tape-like print medium to be wound around the cable-like

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member based on the external diameter inputted through the first external diameter input system and the stored data table [col 5: lines 30-41, col 30: lines 60-67, col 31: lines 1-7 (Notice, a binder has spiral coil attached to its spine. Considering the combined spiral coil and spine of a binder as a cable-like member, width of a strip to be applied to the spine is determined by width of the spine which is considered as external diameter of the combined spine and spiral coil of a binder.)). Therefore, with the prescription of Parker et al on a width determination system of a tape printing control device used for book spine labeling based on the diameter of a flattened book spine, it would have been an obvious alternative for an ordinary skilled in the art to implement the same structure and apply the same technique to select a tape with proper width for providing optimum taping and labeling overage on any other cable-like members.

Parker et al prescribes informing a printer of the recommended width in col 31: lines 4-7 although not explicitly informing a user. However, a display capable of informing user any information is disclosed in both Kojo [fig. 2: unit 4] and Kurashina [fig. 13: unit S2, fig. 26: S48]'s teaching. Therefore, with Parker et al's prescription on an automatic tape width selecting system for selecting a best-fit tape size and Kojo and Kurashina's disclosure on structure limitations of a display unit for displaying any information entered or generated, it would have been obvious for an ordinary skilled in the art to combine the teaching of all to inform user recommended width of a tape to be wound around a cable-like member by directly selecting a tape with proper width for optimum printing or displaying recommended information on a display unit for user verification purpose.

Although Parker does not explicitly express the correlation between adhesive quality of the tape and flexural rigidity of the cable-like member, the potential relationship would have been obvious in Parker's teaching. It is a common sense and an obvious situation to an ordinary skilled in the art that a narrow tape stuck to a cable would be more likely to come off when the cable is bent/twisted due to poor adhesion from the narrow contact surface. The same correlation exists in Parker's invention. A narrow binder strip applied to a wide and curved binder spine or bound to a big stack of sheets would not endure bending/twisting of binder/stack from regular handling. Or binding a wide tape to a thin stack of sheets stiffens the sheets and hampers handling/flipping of the sheets. Therefore, it would have been obvious for an ordinary skilled in the art to apply tapes with different widths to cable-like members with different diameters/thickness based on Parker's teaching for obtaining better correlation between adhesiveness of the tape and rigidity of the cable-like member.

Regarding claim 4 (previously presented), the rationale applied to the rejection of claim 1 has been incorporated herein. Kurashina further teaches: The tape printing control device according to claim 1, wherein when a character string extending for two or more lines has been stored in the character string memory, the character image generator generates the character image treating the character string of two or more lines as one image [col 65: lines 1-25].

Regarding claim 5 (currently amended), the rationale applied to the rejection of claim 1 has been incorporated herein. Kojo further teaches: The tape printing control device according to claim 1, further comprising: a second external diameter input system through which an external diameter of a cable-like member can be inputted; and a print range setting system which sets the print range stored in the print range memory based on the external diameter inputted through the second external diameter input means [abstract, col 8: lines 28-46, col 18: lines 21-25, figs. 9, 10, and 14].

Regarding claim 6 (currently amended), the rationale applied to the rejection of claim 5 has been incorporated herein. Claim 6 has been analyzed and rejected with regard to claim 5.

Regarding claim 7 (currently amended), the rationale applied to the rejection of claim 1 has been incorporated herein. Kojo further teaches: The tape printing control device according to claim 1, further comprising a character size determination system for determining character size of the character image generated by the character image generator based on at least one selected from the number of characters of the character string stored in the character string memory, the number of lines of the character string stored in the character string memory, size of the print range stored in the print range memory, an external diameter of a cable-like member [col 1: lines 22-28]. And Parker et al further determine the width of the tape-like print medium [col 5:

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lines 30-41, col 30: lines 60-67, col 31: lines 1-7].

Regarding claim 10 (currently amended), the steps herein have been performed or executed by the corresponding apparatuses in claim 1. Claim 10 has been analyzed and rejected with regard to claim 1 and in accordance with Kurashina's further teaching on: A computer-readable medium storing a computer-executable program that causes a computer to execute [col 44: lines 64-67].

Regarding claims 13-16 (currently amended), the rationale applied to the rejection of claim 10 has been incorporated herein. Claims 13-16 have been analyzed and rejected with regard to claims 4-7 respectively.

4. Claims 2, 3, 11, 12, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurashina (US Patent: 6,707,571), Kojo (US Patent: 6,371,670), and Parker et al (US Patent: 6,027,265); and in further view of Wrobel (US Patent: 4,609,208).

Regarding claim 2 (previously presented), the rationale applied to the rejection of claim 1 has been incorporated herein. Kurashina further teaches printing different character strings between the ends: The tape printing control device according to claim 1, wherein the print controller controls the print position of each character image so that the character image generated by the character image generator will be

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printed at both ends of the print range stored in the print range memory in regard to the lengthwise direction of the tape-like print medium and between the ends so as to equalize distances between the character images [figs. 27 and 28]. In the same field of endeavor, Wrobel illustrated the same character string printed at the both ends and in between to equalize distance in [figs. 1 and 3]. Printing character strings in equalized distance between the both ends of a tape has been well practice in the art as prescribed by both Kurashina and Wrobel. Therefore, the combined teaching of Kurashina, Kojo, Parker et al, and Wrobel would have been obvious for an ordinary skilled in the art to print characters in equal space in lengthwise direction of a tape for the purpose of fully utilizing the tape space or easy identification from any direction.

Regarding claim 3 (previously presented), the rationale applied to the rejection of claim 1 has been incorporated herein. Claim 3 has been analyzed and rejected with regard to claim 2.

Regarding claims 11 and 12 (currently amended), the rationale applied to the rejection of claim 10 has been incorporated herein. Claims 11 and 12 have been analyzed and rejected with regard to claims 2 and 3 respectively.

Regarding claim 19 (currently amended), the rationale applied to the rejection of claim 2 has been incorporated herein. Claim 19 has been analyzed and rejected with regard to claim 5.

Regarding claim 20 (currently amended), the rationale applied to the rejection of claim 11 has been incorporated herein. Claim 20 has been analyzed and rejected with regard to claim 5.

5. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurashina (US Patent: 6,707,571), Kojo (US Patent: 6,371,670), and Parker et al (US Patent: 6,027,265); and in further view of Nunokawa et al (US Patent: 6,109,798).

Regarding claim 9 (previously presented), the rationale applied to the rejection of claim 1 has been incorporated herein. Kurashina further teaches cutting the tape at predetermined length in [col 38: lines 51-59]. Kurashina, Kojo, and Parker et al are silent about cut marks. In the same field of endeavor, Nunokawa et al further teach: The tape printing control device according to claim 1, wherein the print controller executes print control so that cut marks as marks indicating cutting positions will be printed at both ends of the print range stored in the print range memory in regard to the lengthwise direction of the tape-like print medium [col 21: lines 62-67, col 22: lines 1-20]. Therefore, it would have been obvious for an ordinary skilled in the art to modify the teaching of Kurashina or Kojo to have the cut marks for the purpose of easy recognition of cutting position.

Regarding claim 18 (currently amended), the rationale applied to the rejection of claim 10 has been incorporated herein. Claim 18 has been analyzed and rejected with regard to claim 9.

Conclusion

6. Applicant's amendment necessitated the new grounds of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fan Zhang whose telephone number is (571) 270-3751. The examiner can normally be reached on Mon-Fri from 8:00-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fan Zhang/

Patent Examiner

/Mark K Zimmerman/

Supervisory Patent Examiner, Art Unit 2625